

Motivation of Handwriting in Grade four

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in Grade four

By
Irene L. Lidwin

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MOTIVATION OF HANDWRITING
IN GRADE FOUR

Submitted by

Irene Lydia Lidwin

(B.S. in Ed., Lowell Teachers College)

1942

In partial fulfillment of requirements
for the degree of Master of Education

1948

First Reader: Dean Donald D. Durrell, Professor of Education

Second Reader: Dr. W. Linwood Chase, Professor of Education

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INTRODUCTION

It is still important for children to learn to write rapidly and legibly, even though the use of the typewriter is growing steadily. There are some writing situations in which a typewriter cannot be used easily, as in signatures, and taking notes during a lecture or telephone conversation.^{1/}

Handwriting in the modern school is not as good as it once had been.

"Teachers and supervisors and even laymen have had the impression, for some time, that school children do not write as well as they did a generation or more ago."^{2/}

The illegible handwriting of a fourth grade class and the absence of a handwriting outline for that particular fourth grade have led the author to attempt this review of methods and suggestions. Included in this review is a plan which can be used in the classroom.

^{1/} Paul McKee, Language in the Elementary School, Houghton Mifflin Company, Boston, 1934

^{2/} William S. Gray, Frank N. Freeman, and William A. Brownell, "Trends in the Three R's", Childhood Education, XIII, May, 1937, pp. 414-419



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CHAPTER I

REVIEW OF METHODS IN TEACHING HANDWRITING

The incidental method of teaching handwriting has not been adequate even for the meager requirement, legibility. "The child must have some direction and guidance."^{1/}

Since handwriting is a motor skill, "it is necessary to follow a procedure common to the learning of other motor skills."

- "1. The learner must be ready to learn.
2. The learner must be willing to learn facts and work at principles.
3. The learner must be willing to practice to reach acceptable standards."^{2/}

According to Alltucker, the steps in teaching handwriting are:

- "1. Present a definite objective goal for each child.
2. Let him try to reach it.
3. Have him measure his own success or failure.

^{1/} William Henry Pyle, The Psychology of the Common Branches with Abstracts of the Source Material, Warwick and York, Inc., Baltimore, 1930, Chapter IX, p. 199

^{2/} Beulah P. Beale, "Trends in Handwriting", Education Digest X, November, 1944, pp. 23-25

4. In the event of failure, supply such assistance as he may ask for and encourage him to try again.
5. In the event of success, present a new and slightly more difficult objective until the ultimate goal is reached."1/

West suggested the substitution of language and spelling for the regular penmanship period. Then penmanship drill would not be considered an extra subject, but, instead, a part of the regular written work. West believed "this correlation of subjects was a remarkable move toward giving the child a general ideal and habit."2/

Freeman and Dougherty do not favor the correlation of writing with other subjects. They said that writing was an independent subject and should not be minimized. They suggested that writing be given in a separate period and that good writing be required in all subjects. They recommended the introduction into the writing lesson, of the form and words that the child will need in other subjects.3/

1/ M. M. Alltucker, "The teaching of Handwriting", Journal of the National Education Association, XVI, 1927 pp. 25-26

2/ Paul V. West, Changing Practices in Handwriting Instruction, Educational Research Monographs, Number 9, Public School Publishing Company, Bloomington, Illinois, 1927, pp. 41-137

3/ Frank N. Freeman and Mary L. Dougherty, How to Teach Handwriting, Houghton-Mifflin Company, Boston, 1923

Thompson found that the incidental teaching of spelling and handwriting in other subject matter was a failure. He worked with a set of exercises that included homogeneous groupings of letters and units built around spelling vocabulary. They also included specific writing problems with suggested activities for their mastery.^{1/}

Cole, in her diagnostic teaching of handwriting, stressed no particular position as long as it was comfortable. She used the fountain pen--not pen and ink. Her work included simple exercises, diagnosis by the teacher, and remedial work. Each pupil worked on his own difficulties. There was no general exercise in the series. When a child wrote an exercise satisfactorily three times in succession, he was given a star and excused from further drill on that exercise. All her exercises were only on letter formation.^{2/}

Guiler found that diagnosis and analysis are important in overcoming faults. He also indicated that handwriting is greatly improved by concentrating on the

^{1/} Stanley I. Thompson, "Integration of Fifth Grade Spelling and Handwriting", Elementary School Journal XLII, January, 1942, pp. 347-357

^{2/} Luella W. Cole "Heresy in Handwriting", Elementary School Journal, XXVIII, April, 1938, pp. 606-618

difficult points. His work included preliminary testing, diagnosis and analysis, remedial instruction, and retesting.1/

Hertzberg experimented with kindergarten children using four different methods in tracing and using a copy in the teaching of handwriting to beginners. He found that direct learning from the copy proved best. "There was no appreciable transfer of tracing."2/

In Kittle's method, the children do all new work in the air while the teacher counts in march rhythm. Then the pupils retrace large work on work sheets. Last of all the pupils make their own letters in the space provided.3/

Maretz devised a plan for the integration of English and writing. The writing was taught through the display of a good specimen to the class and through self diagnosis.4/

1/ W. S. Guiler, "Improving Handwriting Ability", Elementary School Journal, XXX, 1929, pp. 56-62

2/ O. E. Hertzberg, A Study of Methods Used in Training Beginners to Write, Teachers College, Columbia University, New York, Contributions to Education, 1926

3/ Ruth Kittle, Kittle's Penmanship Retrace Build Work Sheets Cursive Book 4, American Book Company, New York, 1947

4/ Sarah Maretz, "Plan for Integration of the Subjects, Handwriting and Language," Grade Teacher, Volume IV, Number 7, March, 1938, p. 36

Johnson, in his experiment, observed that the evidence revealed that improvement in writing was steady, when the child used for comparison his own work and samples from the text. He also found that the "amount of time spent in practice was less important than the amount of effort given by the class teacher to the development of writing consciousness."1/

Beale suggested these points for the content of a lesson:

- "1. Writing a familiar paragraph.
2. Measuring the quality of writing.
3. Selecting most conspicuous errors.
4. Practicing exercises designed to remedy error.
5. Rewriting the same familiar paragraph trying to eliminate the errors.
6. Measuring the quality again."2/

Hildreth listed the following trends in the teaching of handwriting:

- "1. The child is permitted much more liberty in making his own handwriting adjustments, in style of letter formation, as well as in movements and speed. Systems of writing have been discarded in favor of natural comfortable position, slant, and muscular effort.

1/ William H. Johnson, "The Improvement of Handwriting", Elementary School Journal, XLIII, 1943, pp. 90-96

2/ Beulah P. Beale, "Trends in Handwriting", Education Digest, X, November, 1944, pp. 23-25

Children are not trained for rigid position which may break down under the far from ideal conditions in which the pupil must later write. Experimental evidence favors the trend toward handwriting with good coordination. A major emphasis is not on free arm movement, but relaxed hand and fingers which cooperate efficiently in the task."1/

2. Adult models are no longer traced by the children. No tracing forms (Montessori System).2/
3. We rely increasingly on inner maturation of the mental and motor capacities to take care of handwriting improvement.
4. There is a noticeable change from the elaborate cursive to simpler forms based on the earlier Roman manuscript forms.
5. These are labeled as obsolete:
 - a. Penny on back of hand to correct pronation.
 - b. Insisting on arm movement in all writing.
 - c. Games and stories for sliding fingers on nails.
 - d. Counting in rhythm--repeating jingles in drill.
 - e. Writing in the air.
 - f. Tracing a perfect copy.
 - g. Skating games for light touch
 - h. Holding a ball of paper in hand to loosen grip.
 - i. Placing a pencil under the wrist to aid arm movement.
 - j. A frame for handwriting or a finger guide.3/

1/ Gertrude H. Hildreth, Learning the Three R's, Educational Publishers Incorporated, Minneapolis, Minnesota, 1936, pp. 231-239

2/ Maria Montessori, The Montessori Method, Frederick Stokes Company, 1912, pp. 246-270

3/ Gertrude H. Hildreth, loc. cit.

6. Accessory drill, such as push-pulls and ovals, is discarded. More actual writing is done.
7. The wider use of the fountain pen is observed.
8. The children are rewarded for attempts at improvement rather than absolute standards of excellence.
9. The value of artificial incentives for improvement seems dubious. Improvement comes from the extensive opportunity for writing. With the discard of formal, detached drills, go the teacher created awards.
10. The use of improved methods of diagnosis is seen.
11. The use of handwriting scales is observed.
12. The use of diagnosis, adjustment, and correction in helping each child is the trend.^{1/}

According to the Handwriting Committee of the 1926 Yearbook of the Department of Superintendence, the tendencies in handwriting are:

- "1. To limit the time for the teaching of handwriting to the first six grades.
2. To excuse pupils from practice, when standards set up have been attained and are maintained in all written work.
3. To place emphasis upon individual and group instruction rather than uniform mass instruction.
4. To prepare and arrange content material so as to allow pupils to progress as fast as they are able.
5. To correlate handwriting practice with other activities.

^{1/} Gertrude H. Hildreth, Learning the Three R's, Educational Publishers Incorporated, Minneapolis, Minnesota, 1936, pp. 231-239

6. To eliminate daily handwriting drill instruction in the intermediate school except for commercial groups and hospital classes for the poorer writers.
7. To follow up the writing in the intermediate or junior high school through the English, social science, and exact science classes.
8. To make the daily class practice include material from other subjects such as spelling, social science, and exact science, etc.
9. To stress values and situations which will provide children with opportunities for appraising their own work and directing their own progress."1

1/ Lena Shaw, et al. "Handwriting", Fourth Yearbook, National Education Association, Department of Superintendence, Washington, D. C., February, 1926, Chapter 5, pp. 113-125

CHAPTER II

REVIEW OF SUGGESTIONS FOR MOTIVATING HANDWRITING

Motivation

"The ideal that is highly desirable with every subject is that the mastery of it shall prove its own reward."1/

According to Pyle "the chief incentives are to show progress daily, weekly, and monthly and to excuse the child, when he reaches the grade goal."2/

Cole believed there was no greater incentive than the presence of children who had reached the goal and were therefore allowed to spend drill periods in pursuing other interests.3/

West did not believe in excusing the good writer from penmanship work altogether. He recommended giving the child an opportunity to use writing in another practical way, such as, "Permit to copy assignments on the board." He believed that this "permit" was the best

1/ Paul V. West, Changing Practices in Handwriting Instruction, Educational Research Monographs, Number 9, Public School Publishing Co., Bloomington, Illinois, 1927, pp. 41-137

2/ William Henry Pyle, The Psychology of the Common Branches With Abstracts of the Source Material, Warwick and York, Inc., Baltimore, 1930, Chapter IX, pp. 191-218

3/ Luella Cole, Psychology of the Elementary School Subjects Farrar and Rinehart, New York, 1934, Chapter V, pp. 115-148

incentive in the list.^{1/}

West said that competition could never be entirely eliminated from classwork because it would find "spontaneous expression in a wholesome manner." He believed that it was "questionable, whether, and to what extent it should be artificially stimulated either in group or individual forms."^{2/}

In Walker's plan of group teaching, three classrooms worked together. The A's were in one room, the B's in another room, and the C's in the third. One group received instruction, while the other groups were doing something else. Once a month, the groups were regraded and the best writers in room A were sent to room C to become pupil helpers. The rest of the children moved according to progress.^{3/}

West listed the following devices for the motivation of handwriting:

1. Certificates granted when the goal is attained.
2. Stars used for daily and weekly good work.
3. Seals and stamps used instead of stars.

^{1/} Paul V. West, Changing Practices in Handwriting Instruction, Educational Research Monographs, Number 9, Public School Publishing Company, Bloomington, Illinois, 1927, pp. 41-137.

^{2/} Paul V. West, loc. cit.

^{3/} H. C. Walker, "The Development of the Unit Plan of Penmanship Practice", Journal of Educational Research, Volume I, February, 1920, pp. 112-118

4. Buttons, pins, and ribbons of various colors given for the children to wear.
5. Pupils name written "fancy" by the supervisor.
6. Cards, called "good position" cards, given.
7. Child's name placed on honor roll on bulletin board.
8. Contests with prizes of value, such as pictures and etchings.
9. Banners given to rows, rooms, or grades.
10. Division of room into "teams" with prize of cup or shield.
11. Division of room into "teams" with no other prize than pride.
12. Good papers on the bulletin board.
13. "Good writers" rows or seats.
14. Best work of each day put up. This work stays there until someone beats it.
15. Approval of each class drill as completed. The first child to finish a set of exercises is recognized as the "best writer."
16. Best papers shown at parents' meetings.^{1/}
17. Samples of first and last work of the year compared.
18. Special club membership given to best writer.
19. Competition to see who will get promoted first to another new project.
20. Best writer of row made "captain."

^{1/} Paul V. West, Changing Practices in Handwriting Instruction, Educational Research Monographs, Number 9, Public School Publishing Company, Bloomington, Illinois, 1927, pp. 41-137

21. Good writers excused from drill for a week.
22. Conditional excuse from drill of those who reach a certain standard.
23. Privilege to send drills to the penmanship company for approval.
24. Outdoor play period during writing.
25. Privilege to take home story books to read.^{1/}

Kendall and Houston suggested the exchange of specimens between classrooms and committees of pupils to decide which children have the best position and writing as devices for motivation.^{2/}

According to Pyle, "rhythmical movements aid in learning to write and increase interest."^{3/}

West mentioned the use of oral dictation instead of printed copy and spelling out the words instead of counting, as incentives. The latter would have to be carefully planned, since it didn't always fit the situation.^{4/}

1/ Paul V. West, Changing Practices in Handwriting Instruction, Educational Research Monographs, Number 9, Public School Publishing Company, Bloomington, Illinois, 1927, pp. 41-137

2/ C. N. Kendall and Harry Houston, The Teaching of Penmanship, State of New Jersey, Department of Instruction, 1912.

3/ William H. Pyle, The Psychology of the Common Branches With Abstracts of the Source Material, Warwick and York, Inc., Baltimore, 1930, Chapter IX, pp. 191-218

4/ Paul V. West, loc. cit.

Taylor suggested the following incentives:

1. Before and after exhibit, placing each pupil's first and last papers together for comparison.
2. Extra credits for good penmanship in other subjects.
3. Pupils keep own scores and mark their improvement through the use of scales.
4. Have the principal give approval stamps.
Banner to be given to the class having the most stamps.^{1/}

Johnson stated that attractive material and funny sentences help to relieve tiredness.^{2/}

Individual Differences

Judd suggested that the individual differences of the child, rather than the perfect copy, be concentrated upon. He recommended that the child keep his own slant. He believed that the child would adjust his pen position to suit his needs. He also suggested that the child be allowed to try various paper positions to find the one suited for him.^{3/}

Beale stated that all pupils do not need the same amount of practice. She observed that pupils were more

^{1/} Joseph S. Taylor, Supervision and Teaching of Handwriting, Johnson Publishing Co., Richmond, Va., 1926, p. 160

^{2/} William H. Johnson, "The Improvement of Handwriting", Elementary School Journal, XLIII, 1943, pp. 90-96

^{3/} Charles H. Judd, Genetic Psychology For Teachers, Appleton, N. Y., 1911, Chapters VI and VII

interested in their own individual progress than group progress. She also mentioned that "those who master basic principles maintain the skill."1/

Beale suggested that allowances be made for differences in physical make-up, differences in rate of learning, and differences in the standards of performance. She stated that "since living organisms were being educated, many people fail to see that there is a relationship between the occasional lapses in the quality of writing and periods of acceleration in muscular and neural development."2/

Pyle stated that "by the age of ten or eleven, the child is ready to perfect the writing movements and the letter forms and in a year or two, reach all reasonable efficiency in writing."3/

Cole stated that "there is nothing sacred about any particular slant or any particular position of the paper; the only criteria are the efficiency of the finished product and the ease with which it is produced."4/

1/ Beulah P. Beale, "Making Handwriting Function", Instructor, LXV, January, 1946, p. 14.

2/ Beulah P. Beale, loc. cit.

3/ William H. Pyle, The Psychology of the Common Branches With Abstracts of the Source Material, Warwick and York, Inc., Baltimore, 1930, Chapter IX, pp. 191-218

4/ Luella Cole, Psychology of the Elementary School Subjects Farrar and Rinehart, N. Y., 1934, Chapter V, pp. 115-148

Taylor found that "investigations prove that we must expect children to use various combinations of finger, arm, and wrist movements, but the good writer uses more arm movement than the poor writer."1/

West suggested the following grouping of pupils for handwriting:

- "1. Those needing to retard rate and emphasize quality.
2. Those needing to hold rate constant and emphasize quality.
3. Those needing to emphasize rate and quality.
4. Those needing to emphasize rate taking care not to lose quality.
5. Those who are above in rate and quality, but who need to take care not to lose in either, even though excused from drill."2/

West recommended that "the length of the lesson be varied according to the capacity of the child for continued attention."3/

1/ Joseph S. Taylor, Supervision and Teaching of Handwriting, Johnson Publishing Company, Richmond, Va., 1926, p. 77

2/ Paul V. West, Correcting Faults Revealed by Diagnosis Remedial and Follow-Up Work - Handwriting, Handwriting Number 2, Public School Publishing Co., Bloomington, Ill. 1926, p. 16

3/ Paul V. West, Changing Practices in Handwriting Instruction, Educational Research Monographs, Number 9, Public School Publishing Company, Bloomington, Ill., 1927, pp. 41-137

West suggested the presenting of various forms of letters and letting the child take his choice of style. The chief emphasis is on legibility. The plan has special value in a foreign community.^{1/}

Thompson suggested that each child should be allowed to choose the size of his own letters.^{2/}

Activities

Phelps stated that "a program of activities should be built around the subjects which necessitate writing."^{3/}

The following list is a composite of general suggestions made by various authors:

1. Booklets for any subject or project.^{4/}
2. Stories of children's experiences.
3. Reports on subjects correlated with social studies.
4. Stories about special days.

^{1/} Paul V. West, Changing Practices in Handwriting Instruction, Educational Research Monographs, Number 9, Public School Publishing Company, Bloomington, Illinois, 1927, pp. 41-137

^{2/} Mary E. Thompson, Psychology and Pedagogy of Writing, Warwick and York, Inc., Baltimore, 1911, p. 122

^{3/} E. M. Phelps, "The Handwriting Lesson and 'Other' Subjects", Elementary School Journal, XXXIII, October, 1932, pp. 142-146

^{4/} Frank N. Freeman and The Zaner-Bloser Company, Correlated Handwriting, Teachers' Manual, Book 4, Zaner-Bloser Company, Columbus, Ohio, 1936, p. 16

5. Reports on topics assigned to be looked up.
6. Stories written about masterpieces of art.
7. Stories written about pupils' original drawings.
8. Stories written later to be illustrated.^{1/}
9. Exhibits labeled with descriptive signs.^{2/}
10. Book reports.
11. Friendly letters.
12. Original poems and plays.
13. Proverbs.^{3/}
14. Letters asking for material and information about places and industries.^{4/}
15. Booklet showing graphically and objectively a child's speed and quality.^{5/}
16. Reports of own progress in writing telling faults or difficulties, the teacher helping only when asked for aid.^{6/}

- ^{1/} Sarah Maretz, "Plan for Integration of the Subjects, Handwriting and Language", Grade Teacher, Volume LX Number 7, March, 1938, p. 36
- ^{2/} E. M. Phelps, "The Handwriting Lesson and 'Other' Subjects", Elementary School Journal, XXXIII, October, 1932, pp. 142-146
- ^{3/} Frank N. Freeman and Dougherty, Mary L., How to Teach Handwriting, Houghton Mifflin Company, Boston, 1923
- ^{4/} H. B. Wilson and G. M. Wilson, The Motivation of School WORK, Houghton Mifflin Company, Boston, 1921, pp. 185-190
- ^{5/} E. M. Phelps, loc. cit.
- ^{6/} Paul V. West, Changing Practices in Handwriting Instruction, Educational Research Monographs, Number, Public School Publishing Company, Bloomington, Illinois, 1927, pp. 41-137

17. Older people can serve as clerks in the principal's office.
18. Writing silent reading exercises for lower grades.
19. Making alphabetical lists.1/

1/ Lena A. Shaw et al, "Handwriting", Fourth Yearbook, National Education Association, Department of Superintendence, Washington, D. C., February, 1926, Chapter 5, pp. 113-125.

CHAPTER III

DEVELOPMENT OF EXERCISES, DIAGNOSTIC CHARTS, AND WORD LISTS

In an attempt to make the children conscious that good writing should always be used, a set of exercises was made to correlate with science, reading, spelling, dictionary work and social studies.

The words in these exercises were based on the words used in Grades 1 to 4 as found in the Rinsland 1/ and Buckingham-Dolch 2/ lists. Proper names could not be graded easily so they were used only in the subjects in which they appeared.

Each exercise was made so that certain sentences, copied from the text, would be the correct answers. This made it possible to check the letter or letters that were stressed by that exercise. The letters that were stressed were chosen by counting the frequency of appearance in any given exercise. The letters were introduced at random. The stressed letters were not known to the children.

1/ Henry D. Rinsland, A Basic Vocabulary of Elementary School Children, Macmillan, New York, 1945, pp. 24-636

2/ B. R. Buckingham and E. W. Dolch, A Combined Word List, Ginn and Company, Boston, 1936, pp. 21-185

The children were asked to suggest criteria by which they could analyze their writing. Newland's 1/ list of illegibilities and the Zaner-Bloser 2/ chart of handwriting faults were used to supplement the children's ideas in making the diagnostic chart entitled "How is my writing today?" (Note in Appendix B)

The other chart entitled "Are my letters well made?" was made by the author using as a basis for letter formation the wall chart containing the alphabet put out by the Zaner-Bloser Company. (Note in Appendix B)

The three practice word lists were based on Durrell's 3/ "Selected Vocabulary for Grade Four" and "Remedial-Reading Vocabulary for Primary Grades." These were supplemented by Rinsland's 4/ list.

In the first list "Selected Vocabulary for Grade Four" all the words were copied in the same order as

1/ T. E. Newland, "An Analytical Study of the Development of Illegibilities in Handwriting from the Lower Grades to Adulthood", Journal of Educational Research (1932) 26:249-258

2/ Zaner-Bloser Staff, Handwriting Faults and How to Correct Them, The Zaner-Bloser Company, Columbus, Ohio, 1937

3/ Donald D. Durrell, Improvement of Basic Reading Abilities, World Book Company, Yonkers-on-Hudson, New York, 1940, pp. 345-350, 360-369

4/ Henry D. Rinsland, A Basic Vocabulary of Elementary School Children, Macmillan, New York, 1945, pp. 24-636

they appear in the original list. Since this list had no words beginning with x, words beginning with this letter were taken from the Rinsland 1/ list. The children who made poor initial letters practiced this list.

The second list was also based upon Durrell's 2/ "Selected Vocabulary for Grade Four." Alphabetical lists were made in which each word was placed under each letter that was found in the word with the exception of the initial and final letters. Then the words were arranged so that the letters a, b, c, d, etc. were found alphabetically within the words. In the lists of a, e, and i where there were more than two hundred words, the first four words beginning with a, b, c, d, etc. were used. The rest were discarded. This list was used by children whose letters within words were illegible.

The third list was put together in a way similar to the procedure used for list two. In this case, the words were arranged so that the letters of the alphabet were final letters. Here both of Durrell's lists were used. This list was used by the children whose final letters and endings were poor. (Note in Appendix C)

1/ Henry D. Rinsland, A Basic Vocabulary of Elementary School Children, Macmillan, New York, 1945, pp. 24-636

2/ Donald D. Durrell, Improvement of Basic Reading Abilities, World Book Company, Yonkers-on-Hudson, New York, 1940, pp. 345-350, 360-369

CHAPTER IV

AN OUTLINE OF THE HANDWRITING PROGRAM

This plan was an attempt to improve the legibility of the handwriting of a fourth grade class, through the correlation of writing with science, reading, spelling, history, and geography. To increase the versatility of the class in the use of handwriting tools, the following materials were employed in written exercises and practice:

1. Long and short wooden pencils.
2. Fountain and ordinary pens.
3. Lined and unlined paper.

The writing program was carried on for nine weeks from January 5, 1948 to March 5, 1948.

No definite daily period was set aside for handwriting. Time was taken when it seemed most convenient for the class.

The weekly plan was as follows:

- | | |
|----------------|--|
| <u>Monday</u> | - Demonstration of correct writing individually or to groups followed by practice. |
| <u>Tuesday</u> | - Pupil analysis of own regular class work recorded on diagnostic chart. |

- Wednesday - Use of written exercises both for practice and checking letter formation.
- Thursday - Two minute test - results recorded on the diagnostic chart.
- Friday - Practice on letters poorly made in the test.

Typical weekly work was carried out thus:

Monday

The main faults of the class were poor letter formation and changing slant. Correct forms of most of the letters in the alphabet were demonstrated and explained. The group was shown how to make the slant go one way regardless of the angle of the slant.

After the demonstration, the children worked at the board and on paper. Half the children practiced their names and spelling words at the board, while the other half worked at their desks. Those at the board were given five minutes to practice. Then they were asked to make a final copy and to go back to their seats. Their work was simply analyzed as to slant, spacing, and letter formation. The second group went to the board and the procedure was repeated, while the first group worked, on paper, upon some specific fault pointed out in analysis.

Numerical rhythmic counting was used in an attempt to regulate the speed of the class by the acceleration of the slow writers and retardation of those who wrote very fast.

Tuesday

The first week, the children were asked to write a sentence containing all the letters of the alphabet, viz.: "A quick brown fox jumps over the lazy dog."^{1/} The author then checked each letter by placing the hole of the oak-tag finder over the letter. Illegible letters were crossed out and listed on the back of the paper. Every child was shown which letters he made incorrectly. (See Appendix B, p. 59)

Each child chose, at random, one of the day's written assignments on which to check his writing. He analyzed this paper by using the diagnostic chart entitled "How is my writing today?"

The questions on the chart that could be answered with "Yes" were marked by a check, while replies of "No" were designated by a cross. (See Appendix B, pp. 54-56)

To check slant, alignment, spacing of letters and words, he employed the following tests taken from "Handwriting Faults and How to Correct Them": ^{2/}

^{1/} Max Rosenhaus, Penmanship Self-Taught, Teachers' Manual, The Zaner-Bloser Company, Columbus, Ohio, 1938

^{2/} Zaner-Bloser Staff, Handwriting Faults and How to Correct Them, Zaner-Bloser Company, Columbus, Ohio, 1937

1. *Slant*
2. *Alignment*
3. *Spacing of letters*
4. *Spacing of words*

In number one, the slant should go one way, in two, the lines should be parallel, and in three and four, the inserted lines should be about the same length, taking each one separately.

With the help of the oaktag finder, the child located poorly made letters and recorded them on a chart entitled, "Are my letters well made?" This chart contained capital and small letters. (See Appendix B, pp. 57-58)

The analyzed papers were filed in the individual folders.

Wednesday

These exercises were used during the nine week period:

1. Geography - Question and Answer - Letters checked - R, s, g
2. Word Meaning - Matching
(Appendix A, pp. 44-45)
3. Geography - Completion - Letters checked - T, f, c, u
4. History - Completion
(Appendix A, pp. 42-43)
5. Geography - Question and Answer
(Appendix A, pp. 46-48)
6. History - Question and Answer - Letters checked - I, l, G

7. Geography - Proving Statements - Letters
checked - E, w, v
8. Spelling - Alphabetical Order
(Appendix A, p. 53)
9. Science - Proving Statements
(Appendix A, pp. 49-52)

In these lessons, silent reading was treated as a tool rather than a subject in itself.

The children wrote the first four exercises on lined paper and the last five on unlined paper. This work gave the children practice in writing, in pencil and ink, words in sentences using lined and unlined paper. At the same time, the work provided a cursive copy that the children could follow.

The letters that were stressed in each lesson were unknown to the children.

The exercises were given to the group as a whole so that the writer could check on these two points:

1. General appearance of the writing in pencil, ink, on lined, and plain paper.
2. Letter formation, when the fact that they were being checked was unknown to the children.

Thursday

Paragraphs copied from history, geography, and reading assignments, used the day of the test, were the materials given for the weekly two-minute tests. The children had an opportunity to become familiar with the material as

they did the assignment.

The paragraphs were chosen on the basis of these two criteria:

1. Number of different letters contained.
2. Content of about two hundred and eighty-five letters, using the Ayres 1/ Scale for comparison.

Each child, with the help of the writer, rated himself and recorded his progress on the diagnostic chart.

The average speed per minute was found by dividing the number of letters written in two minutes by two.

Friday

Three word lists, practice for initial, central, and final letters, were used. Each child knew, from the work analyzed on Tuesday and Thursday, which letters he made poorly. When he had completed his assigned work, he copied the words containing these letters using the list that fitted his needs. The child copied as much of the list as he could, making use of the long and short pencils, fountain and ordinary pens, plain and lined paper at different times. (Appendix C, pp. 60-123)

By laying the practice sheet alongside the list, he was able to get a good view of the words to be written.

1/ Leonard P. Ayres, Measuring Scale for Handwriting Gettysburg Edition, Russell Sage Foundation, New York, 1917.

The lists were written in cursive writing to give the child a basis upon which to compare his own writing.

The twenty-three children were given a pre-test for speed and quality using the Ayres 1/ Scale. These samples were scored twice, at different times, and the faults were listed. Each child was taken individually, shown his score on the scale, and told his faults. These points were considered:

1. Score - quality on the scale.
2. Speed - letters written per minute.
3. Uniformity of slant.
4. Pressure on paper - too light, too heavy.
5. Uniformity of alignment.
6. Spacing between letters.
7. Spacing between words.
8. Letter formation.
9. Quality of line - smooth, angular.
10. Size - large, small, decreasing.

The children were told the reason for the test after it was given so as to get typical handwriting samples.

On the basis of the pre-tests, the class was grouped on the suggestions given by West 2/:

1/ Leonard F. Ayres, Measuring Scale for Handwriting Gettysburg Edition, Russell Sage Foundation, New York, 1917

2/ Paul V. West, Correcting Faults Revealed by Diagnosis Remedial and Follow-up Work - Handwriting - Public School Publishing Company, Bloomington, Ill., 1926, 16 p. Handwriting Number 2

- "1. Those needing to retard rate and emphasize quality.
2. Those needing to emphasize both rate and quality."

The Freeman 1/ Scales for Grades 3, 4, and 5 were placed on the bulletin board under the query, "How good is your writing?" From these scales, it was decided that the specimen marked, "Good for Grade 4." 2/ or a quality of 50 with a speed of 55 letters per minute on the Ayres 3/ Scale, was to be the goal. The reward for attaining the goal was permission to use ink in written school work.

Samples of the daily work, as well as the tests, were kept in individual folders. The diagnostic charts were also in the folders for quick comparison of progress.

Positions of the body, writing arm, hands, writing tool, and paper were briefly discussed and demonstrated, but were not stressed. Each child was allowed to assume a position comfortable for him provided it did not distort his body unhealthfully.

At the conclusion of the nine week period, the children were given the final two-minute test, in pencil and ink, for speed and quality, using the Ayres 4/ Scale for scoring.

1/ Frank N. Freeman, Handwriting Measuring Scales for Grades 3, 4, and 5, Zaner-Bloser Company, Columbus, Ohio

2/ Frank N. Freeman, loc. cit.

3/ Leonard P. Ayres, Measuring Scale for Handwriting Gettysburg Edition, Russell Sage Foundation, New York, 1917

4/ Leonard P. Ayres, loc. cit.

CHAPTER V

OBSERVATION AND EVALUATION OF THE PLAN

Observation

The number of pupils taught by this plan was twenty-three. Twenty-one people completed all the work. This group was far too small for any significant statistical results, but it was a tryout to get suggestions for improvement.

Most of the time was spent in working on individual problems, so the rhythmic count was not used very often. Thus the count, probably, made very little difference in the work.

The class, as a whole, was poor in slant and letter formation. The children had little knowledge as to what makes good writing. When the children's writing was compared with the standard for the fourth grade, many children expressed surprise at the poor quality of their own penmanship.

Many children preferred to write with the fountain pen rather than pen and ink.

It was noted that the majority of the children enjoyed practicing writing on the board.

Evaluation

Each child's first and last test papers were compared for legibility and quality. Some improvement was shown in the majority of cases.

The final test, written in ink, was compared with another test taken on the same day, but written in pencil. Generally speaking, the work done with ink was better. Some people, who wrote very black, had a lighter touch with the pen. The writing done with fountain pen was neater and better than that done with pen and ink.

There appeared to be no difference in the work written with long or short wooden pencils.

The work was neater on papers that had lines for the guidance of the eye.

In some cases where letter formation improved, a decrease in speed was noted. In a few instances, the speed increased but the legibility was lowered.

It is possible that the plan was begun too late in the year and was not carried on long enough to show much improvement or deterioration.

Evaluation by the Children

The children's written opinions of the plan were based on these questions:

1. What did you like about the way we learned to write?

2. Was there anything that you did not like about the plan?
3. Do you feel that you can write better now?
4. What part helped you the most?

In answer to question one, the replies were as follows:

1. Fourteen children enjoyed writing on the board.
2. Two children liked practicing the slant.
3. One girl liked writing on the "big pieces of paper," meaning the exercises.
4. One girl liked learning to write with pen and ink.
5. One boy liked finding his speed on the test.
6. One boy liked to close his letters such as a's, d's, etc.

Question two received these answers:

1. Eleven people wrote that there was nothing that they did not like about learning to write.
2. Three people did not like the exercises to write.
3. One boy disliked writing on the board.
4. Three people did not like the testing and diagnosis.
5. One boy did not like making the "c with the hook."
6. One girl did not like holding the pen and pencil so that her hand slid on her fingers across the paper.

Eighteen people felt that they had made some improvement. One child wrote, "My letters are better and

they look better." Another child made this observation, "I feel that I can write now because I learned how you really should write." A third child, who felt that no improvement was made, made this comment, "My letters do not slant one way and you still can't read my letters."

To the question, what helped most in learning to write, the following observations were made:

1. Five children stated that the tests helped.
2. Four children listed that knowing the correct letter formation aided them.
3. Three children wrote that correcting the slant made their writing look better.
4. Two people listed that writing on the board helped.
5. Two people listed that practicing the word lists improved their letters.
6. One girl mentioned that learning to write "light" made her papers neater.
7. Three children made no comment.

Suggestions for Improvement

From the observation and the comments made by the children, the author makes the following suggestions for the improvement of the plan:

1. Make the exercises shorter and more interesting, perhaps a picture or a funny sentence would help.
2. Give the child only the part of the word list that he needs to practice. The children get bored with the whole list.

3. Start the plan in September. There will be fewer bad habits to correct.
4. Give them ink as soon as possible. The children try harder when they have pen and ink.
5. Choose a handwriting scale that measures the criteria that are established as goals.
6. Teach the children to use the handwriting scale. The children want to know where they stand.

SUGGESTIONS FOR FURTHER STUDY

The trends indicated by the plan are interesting to note. It is evident that they are not conclusive and that further study is needed along these lines.

The following are some suggestions for such study:

I An Experiment

- A. Time - spend about a year on the work.
- B. Grade - use at least two rooms--can be any grade--the plan can be adjusted.
- C. Procedure - have one class taught according to the plan while the other class does the regular work.
- D. Keep all records for comparisons and tabulation. Keep the work in the children's folders--it will help.

II For the versatility of the children, use small cards - filing cards - in addition to plain and lined paper. Have the children write on books held in their laps. Have the pupils write at tables, while standing.

III Make a list of all the factors which effect the quality of handwriting.

IV How can a room be organized so that handwriting instruction will meet the needs of each child?

V What are the specific difficulties in the teaching of cursive handwriting?

BIBLIOGRAPHY

BOOKS

- Bobbitt, John F., Curriculum of Modern Education, McGraw-Hill Book Company, New York, 1941, pp. 255-257
- Bryan, Elmer B., The Basis of Practical Teaching, Silver Burdett and Company, New York, 1905, pp. 82-89, 111-119
- Buckingham, B. R. and Dolch, E. W., A Combined Word List, Ginn and Company, Boston, 1936, pp. 21-185
- Charters, W. W., The Teaching of the Common Branches, Houghton Mifflin Company, Boston, 1913
- Cole, Luella, Psychology of the Elementary School Subjects, Farrar and Rinehart, New York, 1934, Chapter V, pp. 115-148
- Durrell, Donald D., Improvement of Basic Reading Abilities, World Book Company, Yonkers-on-Hudson, New York, 1940, pp. 345-350, 360-369
- Freeman, F. N. and Dougherty, Mary L., How to Teach Hand-writing, Houghton Mifflin, Boston, 1923
- Hildreth, Gertrude H., Learning the Three R's, Educational Publishers Incorporated, Minneapolis, Minnesota, 1936, pp. 231-239
- Judd, Charles H., Genetic Psychology for Teachers, Appleton, New York, 1911, Chapters VI and VII, pp. 161-235
- McKee, Paul, Language in the Elementary School, Houghton Mifflin Company, Boston, 1934, pp. 419-454
- Montessori, Maria, The Montessori Method, Frederick Stokes Company, New York, 1912, pp. 246-270
- O'Shea, Michael V., The Child: His Nature and His Needs, The Childrens Foundation, Valparaiso, Indiana, 1924, p. 418
- Parker, Samuel C., Types of Elementary Teaching and Learning, Ginn and Company, Boston, 1923, pp. 16, 17, 13-39

Pyle, William H., The Psychology of the Common Branches With Abstracts of the Source Material, Warwick and York, Incorporated, Baltimore, 1930, Chapter IX, pp. 191-218

Rinsland, Henry D., A Basic Vocabulary of Elementary School Children, Macmillan, New York, 1945, pp. 24-636

Taylor, Joseph S., Supervision and Teaching of Handwriting, Johnson Publishing Company, Richmond, Virginia, 1926 pp. 43-46, 51, 178

Thompson, Mary E., Psychology and Pedagogy of Writing, Warwick and York Incorporated, Baltimore, 1911, pp. 78-79

Wheat, Harry G., The Psychology of the Elementary School Silver Burdett and Company, New York, 1931, Chapters I and VI, pp. 1-17, 257-286

Wilson, H. B. and Wilson, G. M., The Motivation of School Work, Houghton Mifflin Company, Boston, 1921, pp. 185-190

PAMPHLETS

Arnold, Frank H. and Maclean, H. B., Penmanship Stories, A Teachers Handbook, A. N. Palmer Company, New York, 1930, 68 p.

Beacom, Mary S., Model Penmanship Lessons, A. N. Palmer Company, New York, 1931, 72 p.

Freeman, Frank N., Solving Handwriting Needs - As We See Them Today, The Zaner-Bloser Company, Columbus, Ohio 31 p.

Freeman, Frank N. and The Zaner-Bloser Company, Correlated Handwriting - Teachers' Manual, Book 4, Zaner-Bloser Company, Columbus, Ohio, 1936, 16 p.

Handwriting Instruction. Prepared with the Assistance of Mary Jones Murphy, State Curriculum Laboratory, University of New Mexico, Albuquerque, New Mexico, 1937, 55 p.

- Hertzberg, O. E., A Study of Methods Used in Training Beginners to Write, Teachers' College, Columbia University, New York, Contributions to Education, 1926
- Huzzard and McKelvie, Penmanship Teaching Devices, A. N. Palmer Company, New York, 1931, 64 p.
- Kendall, Calvin Noyes and Houston, Harry, The Teaching of Penmanship, Department of Instruction, State of New Jersey, 1912
- Kirk, John G. and Freeman, Frank N., Functional Handwriting, Zaner-Bloser Company, Columbus, Ohio, Copyright 1936, 1942 edition, 120 p.
- Kittle, Ruth, Kittle's Penmanship Retrace Build Work Sheets, Cursive Book 4, American Book Company, New York, 1947 95 p.
- Krenwinkel, Julia, Winnetka Cursive Writing Workbook, Winnetka Educational Press, Winnetka, Illinois, 1938, 44 p.
- Mallory, Pearle I., Teachers' Handbook of Methods in Penmanship Instruction, A. N. Palmer Company, New York 1931, 112 p.
- Palmer Method Handwriting Experts, Palmer Method Handwriting Teachers' Manual, A. N. Palmer Company, New York Revised Edition, 83 p.
- Prince, Eliza V., Penmanship Playlets, A. N. Palmer Company, New York, 1931, 62 p.
- Rosenhaus, Max., Penmanship Self-Taught - Teachers' Manual, Zaner-Bloser Company, Columbus, Ohio, 1938, 48 p.
- Taylor, Joseph S. and Massell, Alexander S., Short Unit Course on Teaching to Write One's Name in Three Lessons, Kipps Bay Neighborhood Association, New York, 1920
- The St. Paul Penmanship Club, Handwriting Helps for Teachers, A. N. Palmer Company, New York, 1931, 127 p.

West, Paul V., Correcting Faults Revealed by Diagnosis - Remedial and Follow-Up Work - Handwriting, Public School Publishing Company, Bloomington, Illinois, Handwriting Number 2, 1926, 16 p.

West, Paul V., Elements of Diagnosis and Judgment of Handwriting - Remedial and Follow-Up Work - Handwriting, Public School Publishing Company, Bloomington, Illinois, Handwriting Number 1, 1926, 24 p.

ARTICLES

Alltucker, M. M., "The Teaching of Handwriting", Journal of the National Education Association, XVI, (1927), pp. 25, 26

Beale, Beulah P., "Making Handwriting Function", Instructor LXV, (January, 1946), p. 14

Beale, Beulah P., "Trends in Handwriting", Education Digest, X, (November, 1944) pp. 23-25

Benbow, Alice E., "Public School Writing", Journal of Educational Method, V (October, 1926), pp. 52-56

Boraas, Harold O., "An Experimental Study of the Relative Merits of Certain Written Letter Forms With Respect to Legibility With Speed and Stability As Related Factors", Journal of Experimental Education, V, (September, 1936), pp. 65-70

Breed, Frederick S. and Downs, E. F., "Measuring and Standardizing the Handwriting in a School System", Elementary School Journal, XVII, (March, 1917)

Cole, Luella W., "Heresy in Handwriting", Elementary School Journal, XXXVII, (April, 1938) pp. 606-618

Cole, Luella W., "Instruction in Penmanship for the Left-handed Child", Elementary School Journal, XXXIX (February, 1939) pp. 436-448

Freeman, Frank N., "An Analytical Scale for Judging Handwriting", Elementary School Journal XV, (April, 1915), p. 432

- Freeman, Frank N., "Handwriting" Third Yearbook, National Education Association, Department of Superintendence, (1925), pp. 205-216
- Goetsch, Walter R., "The Effect of Early Handwriting Instruction," Elementary School Journal, XXXVI, (December, 1935), pp. 290-298
- Grant, Albert and Marble, Margaret M., "Results of Cincinnati Handwriting Survey", School Review, XLVIII, (November, 1940), pp. 693-696
- Gray, William H., "An Experimental Comparison of the Movements in Manuscript Writing and Cursive Writing", Journal of Educational Psychology, XXXI, (1930), pp. 259-272
- Gray, William S., Freeman, Frank N., and Brownell, William A., "Trends in the Three R's", Childhood Education, XIII, (May, 1937), pp. 414-419
- Guiler, W. S., "Improving Handwriting Ability", Elementary School Journal, XXX (1929), pp. 56-62
- Harap, Henry, "Making a Handwriting Course of Study", Educational Method, XI, (January, 1932), pp. 202-209
- Houston, Harry, "Planning Handwriting Instruction", Childhood Education, XIII, (November, 1936) pp. 123-126, 137
- Johnson, William H., "The Improvement of Handwriting", Elementary School Journal, XLIII, (1943) pp. 90-96
- Johnson and Stone, "Measuring the Quality of Handwriting", Elementary School Journal, XVI, (February, 1916)
- Kirk, J. G., "Handwriting Survey to Determine Grade Standards" Journal of Educational Research, XIII, (1926), pp. 181-188, 259-272
- Koos, L. V., "The Determination of Ultimate Standards of Quality in Handwriting in Public Schools," Elementary School Journal, XVIII, (1918), pp. 423-446
- Lehman, Hilda, and Pressey, Luella C., "The Effectiveness of Drill in Handwriting to Remove Specific Illegibilities," School and Society, XXVII, (1928) pp. 546-548

- Little, Marion L. "Current Opinion, Experimentation and Study on Handwriting Problems", Elementary School Journal, XLIII, (June, 1943), pp. 607-611
- Logsdon, James D. and Leggitt, Dorothy, "Remedial Penmanship Program in a Junior High School," School Review XLVII (May, 1939) pp. 363-373
- Maretz, Sarah, "Plan for Integration of the Subjects Handwriting and Language," Grade Teacher, LV, Number 7, (March, 1938) p. 36
- Martin, C. C., "Good Penmanship" - "Why, When, How?", Fifth Yearbook, National Commercial Teachers Federation (1939) pp. 229-233
- McAllister, Cloyd N., "Researches on Movement in Writing", Studies from Yale Psychological Laboratory, VIII, (1900), pp. 21-63
- Newland, T. E., "An Analytical Study of the Development of Illegibilities in Handwriting From the Lower Grades to Adulthood", Journal of Educational Research, XXVI, (1932), pp. 249-258
- Nutt, H. W., "Rhythm in Handwriting," Elementary School Journal, XVII (1917) pp. 432-445
- Phelps, E. M., "The Handwriting Lesson and 'Other' Subjects", Elementary School Journal, XXXIII, (October, 1932) pp. 142-146
- Polkinghorne, A. R., "Current Practices in Teaching Handwriting", Elementary School Journal, XLVII, (December 1946), pp. 218-224
- Richardson, C. O., "Writing Lesson", American Schools, Journal of Education, XCVII, (August, 1938) p. 16
- Roman, K. G., "Studies on the Variability of Handwriting, the Development of Writing Speed and Point Pressure in School Children," Pedagogical Seminary and Journal of Genetic Psychology, XLIX, (September, 1936), pp. 139-160
- Scheideman, Norma V., "Inverse Writing: A Case of Constant Mirror Writing", Pedagogical Seminary and Journal of Genetic Psychology, XLVIII, (June, 1936), pp. 489-494

- Shaw, Lena A. et al, "Handwriting", Fourth Yearbook, National Education Association, Department of Superintendence, (February, 1926), Chapter V, pp. 113-125
- Starch, Daniel, "Unconscious Imitation in Handwriting," Psychological Review, XVIII, (1911), pp. 223-228
- Thompson, Stanley I., "Integration of Fifth Grade Spelling and Handwriting," Elementary School Journal, XLII
- Thorndike, Edward L. "Means of Measuring School Achievement in Handwriting", Educational Administration and Supervision, I, (1915), p. 300
- Traxler, Arthur E., and Anderson, Harold A., "Group Corrective Handwriting in the Junior High School - An Experiment", School Review, XLI, (November, 1933), pp. 675-684
- Walker, H. C., "The Development of the Unit Plan of Penmanship Practice", Journal of Educational Research, I, (February, 1920) pp. 112-118
- West, Paul V., "The Motivation of Handwriting Instruction", Journal of Educational Method, VI, (1927), p. 392
- Wiles, Marion E., "Effect of Different Sizes of Tools on the Handwriting of Beginners", Elementary School Journal, XLIII, (March, 1943), pp. 412-414

BULLETINS, MONOGRAPHS

- Ayres, Leonard P., Scale for Measuring the Quality of Handwriting, of School Children, Bulletin Number 113, Division of Education, Russell Sage Foundation, New York, 1915
- Gray, C. T., A Score Card for Measuring Handwriting, Bulletin, University of Texas, Number 37, Public School Publishing Company, Bloomington, Illinois, July, 1915
- West, Paul V., Changing Practices in Handwriting Instruction Educational Research Monographs, Number 9, Public School Publishing Company, Bloomington, Illinois, 1927, pp. 41-137

CHARTS

Bushman, Lillian, Standard Diagnostic Chart for Measuring Handwriting Objectively, A. N. Palmer Company, New York, 1936

Zaner-Bloser Staff, Handwriting Faults and How to Correct Them, Zaner-Bloser Company, Columbus, Ohio, 1937

SCALES

Ayres, Leonard P., Measuring Scale for Handwriting, Gettysburg Edition, Russell Sage Foundation, New York, 1917

Freeman, Frank N., Handwriting Measuring Scale for Grade 4 Zaner-Bloser Company, Columbus, Ohio

Lister, Clyde C. and Myers, Garry C., New York Penmanship Scale, Board of Education, New York, N.Y.

West, Paul V., The American Handwriting Scale, Department of Research, A. N. Palmer Company, New York, 1929

APPENDIX A - SAMPLE EXERCISES

- | | |
|-----|--------------------------------|
| I | History Completion Exercise |
| II | Dictionary Completion Exercise |
| III | Geography Questions |
| IV | Science Review Exercise |
| V | Spelling Exercise |

Questions
 1. The first sentence of the first paragraph in the opening story is repeated.

The first two paragraphs are well known in American history lessons.

The second paragraph is important because

The study of the first two paragraphs in American history lessons

Columbus is known for his discovery of America in 1492.

Magellan is remembered for his first voyage around the world.

Colum helped Spain by finding a route to the Indies.

Magellan's voyage was the first to circumnavigate the globe.

A, B, C, D, F, H, L, M, N, P,
 Q, S, V, W. Checked.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

12. Carver was looking for
 and he was discovered
 13. Starting with Columbus all these
 men helped Spain in their way.

14. Carver discovered
 15. Carver found no gold but he
 insisted they go on because
 later when people he
 saw were not selling and
 trading their treasure
 16. Carver helped France by
 showing this treasure
 17. What does all this mean to
 do with American History?

Handwritten text, likely bleed-through from the reverse side of the page. The text is illegible due to fading and blurring.

Pages

Directions:

1. Read pages 9 to 14 in your geography. Think of each page.
2. Write out the answer to each question right under the question.

Go! Visit Guatemala City.
What is meant by dry season?

2. When did the dry season begin?

3. Why did you like the dry season?

a, e, i, j, J, checked

4. At harvest time why was the corn left standing in the field?



What kind of food did you
see on the table at what we
do not have?

2.

3

In what ways was Joe's Christ-
mas like ours?

In what ways was the celebration
different?

Again

1. In the space below each word

write, using the system or system
from the book that gives that
the statement is true.

Science Fiction

Lesson 1, pp 5-19

1. Having fully reading through
the whole part of the book

2. Having given an account

3. Having given an account for
their age, then write

b, p, q, y, z checked

to move away from the center.

5 "Down" means toward the center.

Problem 2 pp. 21-25;
The earth has three parts.

6 There is more water on earth than
land.

7 Air forms part of a blanket
around the earth.

2. A liquid is fluid.

3. Chunks are also in the world.

Problem 3 pp 46-47

1. Water freezes at 32° Fahrenheit.

2. Solids do not change shape.

3. Water takes the shape of what ever it is in.

4. Gases try to fill all space in the earth.

15. Frozen water needs more room than liquid water.

Problem 1 pp. 5-56.

16. The whole earth does not have day or night at the same time.

17. It takes a year for the earth to go around the sun once.

Problem 2 pp. 57-65

18. The earth is very old.

19. The earth is not the only body in the universe.

1870

1871

1872

1873

1874

Handwritten title: *Handwritten title*

Handwritten text: *Handwritten text*

Handwritten text: *Handwritten text*

Handwritten word: *Handwritten word*

Handwritten word: *Handwritten word*

Handwritten word: *Handwritten word*

Handwritten word: *Handwritten word*

Handwritten word: *Handwritten word*

Handwritten word: *Handwritten word*

Handwritten word: *Handwritten word*

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Handwritten word: *Handwritten word*

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Handwritten word: *Handwritten word*

Handwritten word: *Handwritten word*

Handwritten word: *Handwritten word*

n.r. t. checked

APPENDIX B - DIAGNOSTIC MATERIAL

- | | |
|-----|--|
| I | General Diagnostic Chart |
| II | Chart for Checking Letter
Formation |
| III | Letter Finder |

How is my writing today?

Mark

Springer

Heister

Eastland

How my letter looks

my way

My penmanship

My own letter, normal

of the

How my writing

improves?

How my writing

looks today?

What improvement
in the appearance of

Date

Therapy
Therapy better
shared?
Therapy would well
suggested?

Therapy
Therapy small letters
as little less than
half an hour high?
Therapy 1/2, 1/2, 1/2
and about half a
hour high?

Therapy credits
and 1/2, 1/2, 1/2, 1/2
Therapy 1/2, 1/2, 1/2, 1/2
Therapy 1/2, 1/2, 1/2, 1/2
and 1/2

Therapy 1/2, 1/2, 1/2, 1/2
and 1/2, 1/2, 1/2, 1/2

1. 1000
 2. 1000
 3. 1000
 4. 1000
 5. 1000
 6. 1000
 7. 1000
 8. 1000
 9. 1000
 10. 1000
 11. 1000
 12. 1000
 13. 1000
 14. 1000
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 89. 1000
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 91. 1000
 92. 1000
 93. 1000
 94. 1000
 95. 1000
 96. 1000
 97. 1000
 98. 1000
 99. 1000
 100. 1000

陳其美先生

陳其美先生

陳其美先生



LETTER FINDER

Letter formation was checked by placing the hole over each letter.

APPENDIX C - WORD LISTS

- I List 1 - Practice for poorly made initial
 letters
- II List 2 - Practice for letters poorly made
 within the word
- III List 3 - Practice for poorly made final
 letters

— 100 —

1998

1990

1866

1904

Chrysomelidae

20

1900

100

424

Handwritten signature

Figure 1

3

1948

Handwritten signature

2000

1914

15. 19. 1960

... ..

[Faint handwritten notes]

1911

100

100

... ..

100

moment
 movement
 monitor
 motion
 motor
 motorist
 mount
 mouse
 music

nasty
 nation
 national
 native
 natural
 nature
 naval
 nervous
 net
 noble
 nonsense
 notion

object
 observe

offer
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painful
 parcel
 parent
 partner
 paste
 peace
 peak
 pearl
 pebble
 pedal
 peddle
 peddler
 peel
 pelk
 perch
 perfect

perfume
 permit
 permanent
 permit
 pebble
 petal
 pilot
 porch
 plaster
 plateau
 pludge
 plump
 plural
 poet
 poetry
 pole
 possible
 polish
 powder
 precise
 principal
 suspect
 purchase
 quarter

quilt
 quilt
 quoted
 racket
 rage
 railroad
 ramble
 range
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 narrow
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 record
 recover
 read
 refuse
 relation
 remnant
 remove
 rent

trace
 trail
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 typewriter

uncertain
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usual
 upland
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vacation
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abaze
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 balcony
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gallery
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1990

This micrograph displays several elongated, needle-shaped clefts, which are characteristic of cholesterol crystals. These structures are often found in synovial fluid or other body fluids in the context of certain types of arthritis.

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 report
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 sphere
 sprawl
 stake
 telegraph
 temple
 trespass
 trumpet
 turpentine
 typewriter
 upland
 upset
 vapor
 vessel

inquire
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 unequal
 over

under
 venture
 against
 bargain
 basin
 beyond
 base

career
 cargo
 corner
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dawn
 declare

depart
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electric
 embark

embrace
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overgrown
 failure
 ferocious
 ferry
 fierce
 gallery

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misdeed

aspect

artist

barrier

base

blast

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blister

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bush

bustle

contain

cask

caution

cast

cheat

congress

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trembling
chump
wrong
young

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bleach
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dispatch
ditch
drift
dugout
flush
fright
furnace
march
pitch
rich
batch
laurel
march
parade

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motivation of Hand writing...

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9 1957	NOV 3 1962
10 1957	
JAN 6 1958	NOV 17 1962
JAN 11 1958	APR 16 1963
MAY 16 1958	
MAY 27 1958	APR 14 '64
	APR 10 '65
G 19 1958	
N 26 1958	
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Lidwin, I.
1948
Motivation of handwriting in
grade four

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Jack Evans

Ed.

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